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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,973	08/26/2003	Hiroshi Akimoto	SCT110	2839

7590 04/11/2005

Garrison & Associates PS
Suite 3300
2001 Sixth Avenue
Seattle, WA 98121-2522

EXAMINER

CASCHERA, ANTONIO A

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,973	AKIMOTO ET AL.	
	Examiner	Art Unit	
	Antonio A Caschera	2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/25/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 8/27/2002. It is noted, however, that applicant has not filed a certified copy of foreign application 2002-246459 as required by 35 U.S.C. 119(b).

Specification

2. The disclosure is objected to because of the following informalities:
- a. The disclosure, including the abstract (see entire abstract), comprises the phrase, "...transmitting the data in a low number of frames or pixels, or in a low number of frames and pixels, the data in a low number of frames or pixels, or in a low number of frames and pixels..." (see page 2, lines 14-19 of the specification) which is not comprehensible. The repeating of the phrase, "...or in a low number of frames and pixels..." should be corrected for.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Pan et al. (U.S. Patent 5,831,872).

In reference to claims 1 and 5, Pan et al. discloses a method and system for compressing/decompressing a video signal using sending and receiving computers in order to transfer data from one computer to another (see column 16, lines 63-66 and #100 and #130 of Figure 1). Pan et al. discloses the system and method implementing compression/decompression techniques wherein the sending computer converts pixel map data to compressed pixel map data, which becomes frames of video, by converting pixel map data to “coefficient signals” (see column 4, lines 65-67, column 11, lines 48-49 and column 6, lines 47-52). Pan et al. discloses selecting certain video frames to be sent to the receiving computer, compressing only these selected frames and transmitting them to the receiving computer (see column 4, lines 4-7 and 10-15). Note, the office interprets the video frames of Pan et al. functionally equivalent to the “group comprised of still image data and moving image data.” Pan et al. also discloses the receiving computer receiving transmitted compressed data, decompressing the received compressed data, which represents video frame signals and converting these decompressed signals to luminance based pixel map data (see column 4, lines 21-23, column 15, lines 13-17 and Figure 9). Pan et al. discloses the receiving computer to then interpolate the decompressed data to create “unselected” (frames not previously selected nor transmitted by sending computer) frames of video (see column 4, lines 28-35 and Figure 10). Pan et al. also discloses storing the frame data in storage (see column 13, lines 46-49 and #905 of Figure 9). Pan et al. finally

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discloses displaying a reconstructed video image including both selected and interpolated frame data (see column 4, lines 33-35).

In reference to claim 2, Pan et al. discloses all of the claim limitations as applied to claim 1 above. Since Pan et al. discloses transmitting a selected number of frames and then receiving and interpolating, or generating intermediate “unselected” frames (see above rejection), the office interprets that Pan et al. inherently discloses transmitting a “low” number of frames and converting the frames into a “high” number of frames. Further, the number of frames transmitted is less than the number generated and displayed, on the receiving computer, therefore a “high” number of frames is created from a “low” number.

In reference to claim 3, Pan et al. discloses all of the claim limitations as applied to claim 1 above. Since Pan et al. discloses transmitting a selected number of frames and then receiving and interpolating, or generating intermediate “unselected” frames (see above rejection), the office interprets that Pan et al. inherently discloses transmitting a “low” number of frames and converting the frames into a “high” number of frames. In other words, the number of frames transmitted is less than the number generated and displayed, on the receiving computer, therefore a “high” number of frames is created from a “low” number. Also, since Pan et al. defines video frames as pixel maps (see column 11, lines 48-49), the number of pixels transmitted, in Pan et al., is also inherently low in number. Further, Pan et al. discloses performing nonlinear interpolation using frame numbers and pixel coordinates (see column 16, lines 1-48). The office interprets that Pan et al. inherently discloses using spatial image interpolation since Pan et al. incorporates pixel coordinates into his interpolation (see column 16, lines 1-48).

In reference to claims 4 and 8, Pan et al. discloses all of the claim limitations as applied to claims 1 and 5 respectively above. Since Pan et al. discloses transmitting a selected number of frames and then receiving and interpolating, or generating intermediate “unselected” frames (see above rejection), the office interprets that Pan et al. inherently discloses transmitting a “low” number of frames and converting the frames into a “high” number of frames. In other words, the number of frames transmitted is less than the number generated and displayed, on the receiving computer, therefore a “high” number of frames is created from a “low” number. Also, since Pan et al. defines video frames as pixel maps (see column 11, lines 48-49), the number of pixels transmitted, in Pan et al., is also inherently lower in number than the number of pixels generated, via interpolation, and displayed on the receiving computer. Further, Pan et al. discloses performing nonlinear interpolation using frame numbers and pixel coordinates (see column 16, lines 1-48). The office interprets that Pan et al. inherently discloses using spatial and time image interpolation since Pan et al. incorporates pixel coordinates (spatial data) and frame number (sequenced order of time) into his interpolation (see column 16, lines 1-48).

In reference to claims 6 and 7, Pan et al. discloses all of the claim limitations as applied to claim 5 above. Pan et al. discloses storing received compressed data (see #905 of Figure 9). The office interprets that Pan et al. inherently discloses receiving a “low” number of frames and converting the frames into a “high” number of frames. In other words, the number of frames received is less than the number generated and displayed, therefore a “high” number of frames is created from a “low” number. Also, since Pan et al. defines video frames as pixel maps (see column 11, lines 48-49), the number of pixels received, in Pan et al., is also inherently lower in number than the number of pixels generated, via interpolation, and displayed. Further, Pan et al.

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discloses performing nonlinear interpolation using frame numbers and pixel coordinates (see column 16, lines 1-48). The office interprets that Pan et al. inherently discloses using time image interpolation Pan et al. incorporates pixel coordinates (spatial data) and frame number (sequenced order of time) into his interpolation (see column 16, lines 1-48).

References Cited

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Ishikawa et al. (U.S. Patent 4,953,196)
 - Ishikawa et al. discloses a video phone system compressing and transmitting image data via a telephone line.
- b. Fu et al. (U.S. Patent 5,703,965)
 - Fu et al. discloses an image compression/decompression method for mathematically transforming an image.
- c. Batkilim et al. (U.S. Patent 6,597,811 B1)
 - Batkilim et al. discloses a method for enhancing the compression of still and images and motion pictures.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781.

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The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

aac

3/11/05



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600